If architecture

is the answer, what was the question?

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Paul W. Taylor | Chief Strategy Officer
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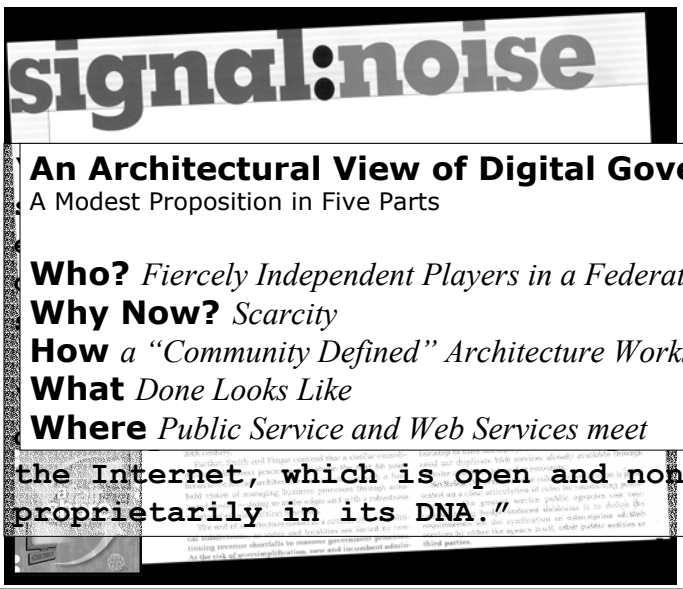
Process is **Process**



Process is **Process**

21st Century Government must be sufficiently

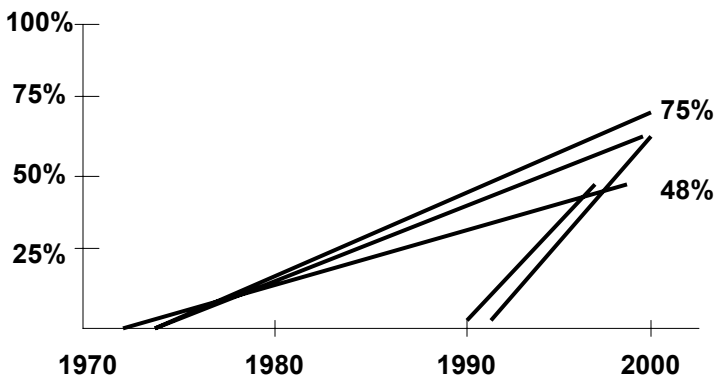
NIMBLE

ROBUST *and*

SECURE

to respond to the next challenge ...
the next opportunity.

The IT Productivity **Question**



Source: Federal Reserve Board, Congressional Budget Office, Council of Economic Advisers

Words **Matter**

HISTORIC STICKING POINT

Data Sovereignty

of the previously discrete system owners

SHIFTED APPROACH (AND LANGUAGE) FROM

DATA

Integration

to INFORMATION

Sharing

Separated at **Birth**

ACTION *at the edges*
FEDERATED *in their DNA*
ER *in meeting demands of the day*

Source: Cooperative Association for Internet Data Analysis (CAIDA).

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The Return of **Scarcity**

DEMAND

DIGITAL DUST

Electronic Product Codes with Radio frequency ID chips will replace existing bar code technology

- ✓ When You Need to Know Things about Things
- ✓ First arriving at the container and palate level - Later at the object level
- ✓ Patterned after Internet technology - object name servers, PML & distributed processor language
- ✓ Future of regulatory compliance and security monitoring will be computer to computer for data transfer, management, and use
- ✓ Regulation and security becomes a real time data mining activity, not a forms process
- ✓ Fits on the "D" on a dime - small enough to embed in products (chemicals, medicine and food)

Source: MIT/ RJV Consulting, Aug 03

www.autoidcenter.org

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The Return of **Scarcity**

SUPPLY

4,300,000,000

UNIQUE INTERNET PROTOCAL (IP) ADDRESSES (v. 4)

NOT ENOUGH WHEN EVERYTHING CONNECTED TO THE INTERNET

-- FEWER THAN 1 BILLION LEFT ...

The Promise of IPv6:

340,000,000,000,000,000,000,000,000,000,000,000

UNIQUE INTERNET PROTOCAL (IP) ADDRESSES (v. 6)

Intergovernmental **Collaboration**

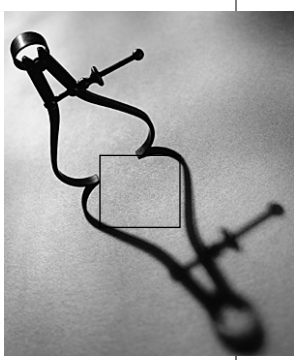
Ad Hoc *At Least One Application in Place*	**58%**
Executive Support *Legislative or Gubernatorial Authority*	**36%**
Earmarked Funds *For Collaboration*	**44%**
Task Force in Place *Dedicated to Intergovernmental Collaboration*	**70%**
Cross Cutting Application - State *Jointly managed across 2 or more state agencies*	**48%**
Cross Cutting Application – State/ Local *Jointly managed across state and local public entities*	**60%**
Collaboration Guided by Architecture *Specifically, under statewide enterprise architecture*	**42%**

Source: Center for Digital Government, 2003

Architecture **at the Edges**

ARCHITECTURAL VIEW OF DIGITAL GOV

Retrofitting proprietary systems and the Internet



Interoperability

Assumes a data sharing relationship among known trading partners.

Our stuff works with stuff like our stuff

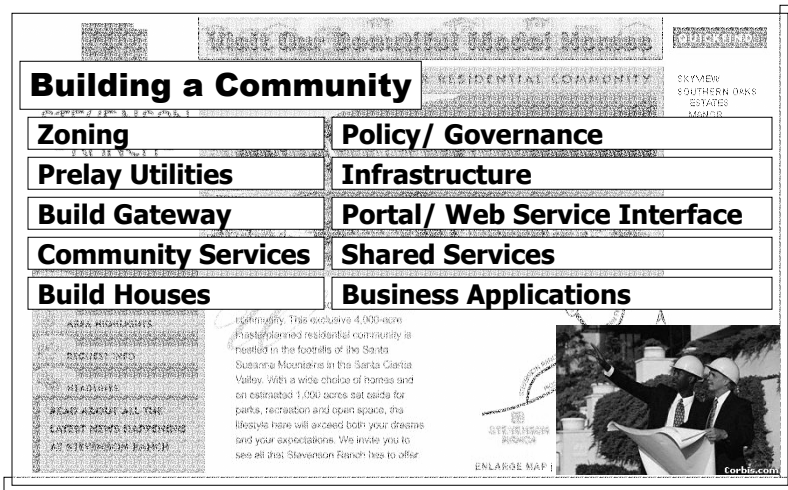
Platform Agnosticism

Assumes not all trading partners are known, or can be anticipated.

Our stuff works with your stuff

Building a Community

Zoning	**Policy/ Governance**
Prelay Utilities	**Infrastructure**
Build Gateway	**Portal/ Web Service Interface**
Community Services	**Shared Services**
Build Houses	**Business Applications**



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Building a Community

Zoning	**Policy/ Governance**
Prelay Utilities	**Infrastructure**
Build Gateway	**Portal/ Web Service Interface**
Community Services	**Shared Services**
Build Houses	**Business Applications**

- Security
- Signature
- Funding
- Organization
- IT Standards

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Building a Community

Zoning	Policy/ Governance
Prelay Utilities	Infrastructure
Build Gateway	Portal/ Web Service Interface
Community Services	Shared Services
Build Houses	Business Applications

- Hardware
- Network
- Integration
- Security
- Hosting

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Building a Community

Zoning	Policy/ Governance
Prelay Utilities	Infrastructure
Build Gateway	Portal/ Web Service Interface
Community Services	Shared Services
Build Houses	Business Applications

- Consistent Look & Feel
- Navigation
- Friendly Search
- 24/7 Customer Care
- Edgy Integration

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Building a Community

Zoning	Policy/ Governance
Prelay Utilities	Infrastructure
Build Gateway	Portal/ Web Service Interface
Community Services	Shared Services
Build Houses	Business Applications

Directory
Messaging
Trust
Payment

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Building a Community

Zoning	Policy/ Governance
Prelay Utilities	Infrastructure
Build Gateway	Portal/ Web Service Interface
Community Services	Shared Services
Build Houses	Business Applications

Licensing
Permitting
Procurement
Human Services
Revenue

Employment
Public Safety
Environment
Transportation
Administration

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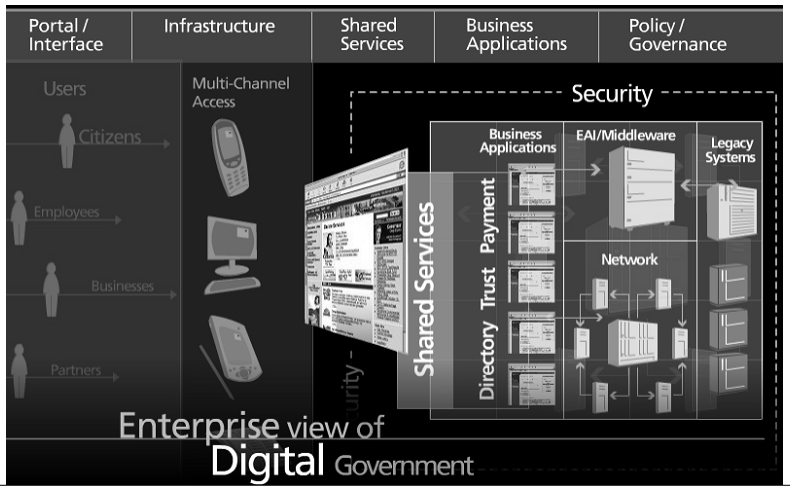
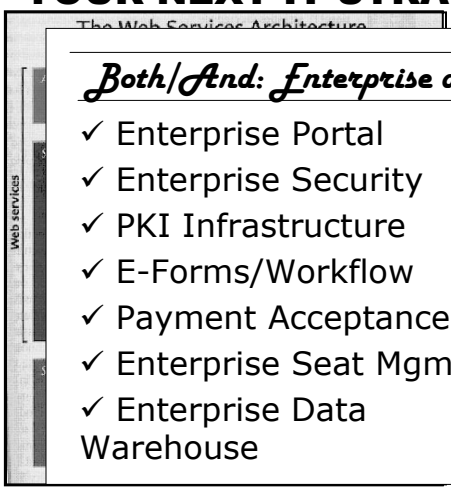
Architecture at the Edges

Layers of Trust and Technology in Intergovernmental Collaboration



What Does Done Look Like?

YOUR NEXT IT STRATEGY



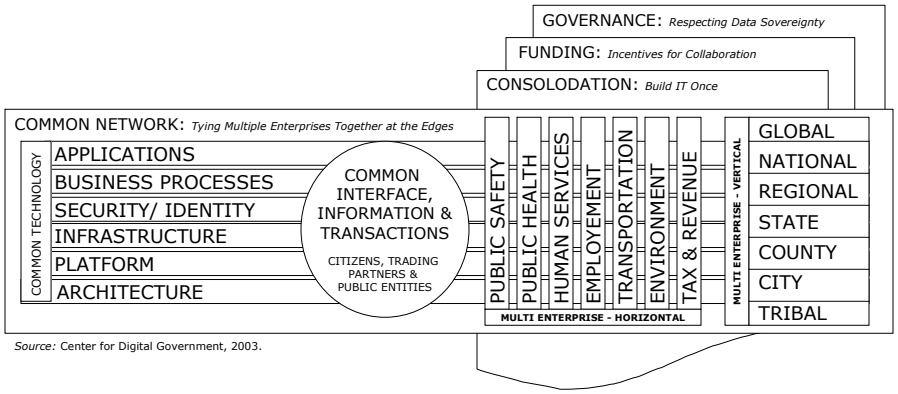
Both/And: Enterprise and Agency Autonomy

- ✓ Enterprise Portal
- ✓ Enterprise Security
- ✓ PKI Infrastructure
- ✓ E-Forms/Workflow
- ✓ Payment Acceptance
- ✓ Enterprise Seat Mgmt
- ✓ Enterprise Data Warehouse
- ✓ GIS Repository
- ✓ Directory Services
- ✓ Storage Area Network
- ✓ Disaster Recovery & Business Continuity
- ✓Infrastructure Help Desk

Source: Harvard Business Review, 2003

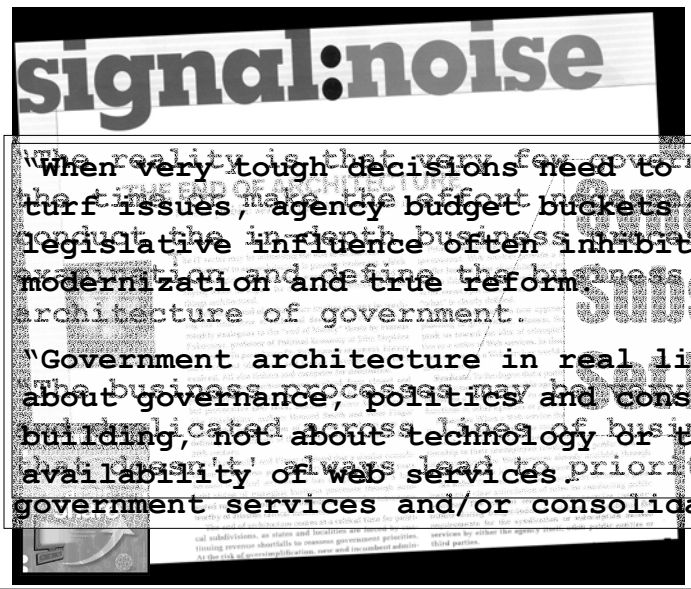
What Done **Looks Like**

Layers of Trust and Technology in Intergovernmental Collaboration



Source: Center for Digital Government, 2003.

Working Back from the **Future**



"When very tough decisions need to be made, turf issues, agency budget buckets and legislative influence often inhibit modernization and true reform."

"Government architecture in real life is more about governance, politics and consensus-building, not about technology or the availability of web services. government services and/or consolidation.

Doug Robinson

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Working Back from the **Future**

Strategic Technical Architecture Roadmap (STAR)
Bob Shanahan, Executive Director, Office of IT

Applications Architecture
Paul Christiani, CIO, Douglas Omaha Technology

Technology *increasingly makes it possible*
Budget *makes it necessary*
Politics *makes it imperative*